

REMARKS

In the Office Action mailed July 18, 2005, the Examiner objected to the specification, requested that the Information Disclosure Statement submitted on February 26, 2002 be resubmitted, rejected claims 10-15 under 35 U.S.C. § 101, rejected claims 1-9 under 35 U.S.C. § 112, and rejected claims 1-15 under 35 U.S.C. §§ 102 and 103. In this response, Applicants have cancelled claims 14 and 15, amended claims, and amended the specification. In addition, Applicants have added new claims 16-22. Upon entry of the amendments and new claims, claims 1-13 and 16-22 will be pending in the application.

In addition, Applicants have summarized a telephonic interview, which was conducted with the undersigned, Mr. Banki, an inventor, and the Examiner on October 17, 2005. In the telephonic interview, Applicants discussed the rejections and the deficiencies of the prior art, which are discussed further below. Applicants appreciate the Examiner's consultation regarding the prior art and the rejections. Accordingly, reconsideration of the rejections and allowance of the pending claims is respectfully requested.

Replacement Information Disclosure Statement

In the Office Action, the Examiner indicated that the Information Disclosure Statement submitted on February 26, 2002 has been lost. Applicants have attached a copy of the original Information Disclosure Statement with this response. Accordingly, Applicants respectfully request the Examiner consider the references cited in the Information Disclosure Statement.

Objections to the Specification

In the Official Action, the Examiner indicated that the specification should include various trademarks. Accordingly, in the present response, Applicants have amended the text in a paragraph on page 9, lines 18-24 and a paragraph beginning on page 25, line 29 and ending on page 26, line 3. These amendments merely replace the phrase "Simula, Eiffel," with the phrase "Simula®, Eiffel™," as suggested by the Examiner. As these amendments do not add any new matter, Applicants respectfully request entry of these amendments.

Rejections under 35 U.S.C. § 101

In the Official Action, the Examiner rejected claims 10-15 under 35 U.S.C. § 101, as failing to produce a tangible result or not directed to statutory subject matter. It should be noted that claims 14 and 15 have been cancelled and, as such, the rejection for these claims is moot.

With regard to claim 10 and 13, the Examiner suggested amending the claim to produce a tangible result. Accordingly, Applicants have amended claim 10 to include the phrase "using the mathematical simulation of transport phenomena to manage the facility network." This amendment is supported by the present application and drawings. *See e.g.* Application, pages 17-22. Further, Applicants have amended claim 13 to include the phrase "using the simulation of transport phenomena to manage the physical system." This amendment is supported by the present application and drawings. *See id.* As these amendments do not add any new matter and produce a tangible result, Applicants respectfully request entry of the amendment and withdrawal of the rejection.

First Rejection under 35 U.S.C. § 112

The Examiner rejected claims 1-9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner asserted that the limitation of "the extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1, prevents a person of ordinary skill in the art from making and using the invention. *See* Office Action, page 6. Applicants respectfully traverse the rejection.

Applicants respectfully submit that the present application complies with the current, well-established legal principals related to enablement. 35 U.S.C. § 112, paragraph one, states that the specification shall contain a written description of the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains to make and use the same. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) in terms of the degree of experimentation needed to practice the claimed invention, and whether this degree of experimentation is undue or unreasonable.

The Federal Circuit continues to employ this same standard. *In re Wands*, 8 U.S.P.Q.2d 1400, 1404 (Fed. Cir. 1998). *See also United States v. Telectronics, Inc.*, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988) (“The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.”). A patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 18 U.S.P.Q.2d 1331, 1332 (Fed. Cir. 1991). Moreover, it has long been settled that so long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claims, the enablement requirement under 35 U.S.C. § 112 is satisfied. *In re Fisher*, 166 U.S.P.Q. 18, 24 (C.C.P.A. 1970).

While Applicants respectfully submit that the Examiner has not satisfied the requirements set forth within the M.P.E.P. § 2164.01(a) for establishing an enablement rejection, Applicants have included citations to at least some of the passages of the specification that provide support for the claimed subject matter based on the discussion with the Examiner during the telephonic interview. To begin, the present application describes a computer system and method for simulating transport phenomena in a complex system. *See* Application, page 1, lines 7-12 and page 6, lines 1-27. Accordingly, different object-oriented programming techniques, such as classes, encapsulation, inheritance and polymorphism, are described as providing certain functionalities within software. *See id.* at page 9, line 17 to page 12, line 26. By utilizing these techniques, a facility network model may be constructed using generic classes. *See id.* at Figs. 2-3; page 12, line 25 to page 14, line 16; and page 15, line 27 to page 17, line 17. Using the generic classes, facility types (i.e. object types), such as wells, separators and network junctions, and attribute types, such as member variables, may be represented. *See id.* at page 9, line 25 to page 10, line 17; and page 13, line 26 to page 15, line 25. When working with the system, a user may create one or more facility instances of the facility types and attribute values of attribute types to model a simulation. *See id.* at page 16, line 32 to page 17, line 5. Thus, the present technique provides a mechanism for permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself. *See id.* at page 15, line 26 to page 17, line 17.

Accordingly, Applicants respectfully submit that the specification of the present application clearly supports the claimed subject matter in terms that are believed to enable a

person skilled in the art to which it pertains to make and use the same. Indeed, as noted above, the application even provides examples of reservoir simulations within the specification. Therefore, because the claimed subject matter does not require a degree of experimentation that is undue or unreasonable, Applicants respectfully request withdrawal of the rejection.

Second Rejection under 35 U.S.C. § 112

The Examiner rejected claim 7 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claim 7 to clarify the antecedent basis of the phrases "additional data member types" and "additional facility data members" in the claim. This amendment is clearly supported in the specification and drawings. *See e.g.* Figs. 4-7; page 14, line 13 to page 26, line 27. As such, this amendment does not add any new matter. Accordingly, Applicants respectfully request entry of the amendment to claim 7 and withdrawal of the rejection.

Rejections under 35 U.S.C. § 102

The Examiner rejected claims 1, 8, 9 and 14 under U.S.C. § 102 (b) as being anticipated by passages from "The C++ Programming Language, Third Edition" by Bjarne Stroustrup (1997), which is herein referred to as "Stroustrup." To begin, it should be noted that claim 14 has been canceled and, as such, the rejection of this claim is now moot. However, with regard to claims 1, 8 and 9, Applicants respectfully assert that the Stroustrup reference does not disclose the claimed subject matter.

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under Section 102, a single reference must teach each and every element or step of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Thus, if the claims recite even one element not found in the cited reference, the reference does not anticipate the claimed invention.

In the rejection of independent claim 1, the Examiner relied upon the Stroustrup reference to disclose all of the recited features. However, Applicants respectfully note that the Stroustrup reference fails to disclose each of the recited features of independent claim 1. For example, Stroustrup fails to disclose an "extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1. Hence, the Stroustrup reference cannot anticipate independent claim 1, much less dependent claims 8 and 9.

Stroustrup describes the C++ concept for creating built-in types to organize classes and take advantage of the relationships. *See* Stroustrup page 223. In particular, Stroustrup describes that inheritance may be utilized to represent the hierarchical relationships directly. *See* Stroustrup page 734. As an example, Stroustrup describes a vehicle class having car and truck subclasses, which also have additional subclasses, such as police car, ambulance, fire engine, and hook and ladder. *See id.* at pages 734-735. The class hierarchy with its relationships between the classes, as noted by Stroustrup, should be selected based on the most realistic model. Further, Stroustrup describes that some classes may have virtual functions to allow classes derived from it. *See id.* at pages 737-738. However, Stroustrup does not describe an "extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1. Indeed, the modification of the emergency class and vehicle class, as described in Stroustrup, does change the class hierarchy. *See id.* at page 735. As such, Stroustrup fails to disclose the claimed subject matter of claim 1.

Accordingly, in view of the remarks set forth above, Applicants respectfully submit that the Stroustrup reference cannot support a *prima facie* case of anticipation. Therefore, Applicants respectfully request the Examiner withdraw the rejection and allow the pending claims 1, 8, 9 and 14.

First Rejection under 35 U.S.C. § 103

The Examiner rejected claims 2-5 under 35 U.S.C. § 103 (a) as being unpatentable over Stroustrup and U.S. Patent No. 6,038,389 to Rahon et al., which is herein referred to as

"Rahon." Applicants respectfully assert that the Stroustrup and Rahon references do not disclose or teach the claimed subject matter.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

In the rejection of claims 2-5, the Examiner asserted that Stroustrup teaches all of the recited features except the details of Applicant's intended use. In an attempt to cure this deficiency, the Examiner asserted that these features are shown by the Rahon reference. However, the cited reference fails to cure the deficiencies of Stroustrup. First, it should be noted that claims 2-5 depend from independent claim 1, and are believed to be patentable based on this dependence. Second, Rahon reference fails to disclose claimed subject matter, such as "wherein the transport phenomena comprises one or more of momentum, energy, and mass transport within a subsurface hydrocarbon-bearing reservoir and between the subsurface hydrocarbon-bearing reservoir and one or more delivery locations at the earth's surface," as

recited in claim 2, "wherein the transport between a subsurface hydrocarbon-bearing reservoir and one or more of the delivery locations comprises one or more transport pathways, the transport pathways comprising at least one of production and injection well types and one or more facility types that are linked together to form a facility network through which hydrocarbon fluids are transported between the subsurface reservoir and the delivery locations," as recited in claim 3, "wherein the facility types contained within the transport pathways comprise at least one facility selected from surface flowlines, manifolds, separators, valves, pumps, and compressors," as recited in claim 4, and "wherein a text file (Data Definitions File) contains the definitions of the possible facility types that can be included in a simulation model and the definitions of the possible member variable types for each facility type," as recited in claim 5. Finally, the Examiner appears to have utilized hindsight reconstruction to pick and choose among isolated disclosures to teach the claimed subject matter. Hence, the cited references, alone or in combination, cannot render the claimed subject matter obvious.

With regard to the first point, Rahon describes a method that simplifies the making of a model allowing simulations of fluid flow in a heterogeneous material environment by utilizing a grid pattern to solve various equations. *See* Rahon, col. 2, lines 54-65. In Rahon, the objective of the method is to rapidly obtain a model of single-phase and multiphase flows in an underground environment. *See id.* at col. 3, lines 35-37. To provide the model, Rahon describes that the model may be divided into grid cells with different sizes. *See id.* at col. 6, lines 40-64. Clearly, Rahon does not disclose an "extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1. As such, Rahon does not cure the deficiencies of Stroustrup.

With regard to the second point, Rahon appears to only describe modeling of a subsurface reservoir, not the transport of hydrocarbons from the subsurface reservoir to the surface. Indeed, in each of the examples, different hydrocarbon reservoirs are described. Clearly, Rahon does not disclose or suggest surface delivery locations, much less facility types linked together to form a facility network through which hydrocarbon fluids are transported to the surface delivery locations. As such, Rahon does not disclose the subject matter of claims 2-5.

Finally, the Examiner's assertion that it would have been obvious to combine the teachings of the cited references to arrive at the claimed subject matter cannot stand. It should be noted that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montifiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Also, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

In the rejection, the Examiner asserted that one of ordinary skill in the art would combine Stroustrup's general discussion of class hierarchies with Rahon's method of modeling a hydrocarbon reservoir. As the motivation, the Examiner relied upon a passage in Stroustrup, which recites that "[t]he point about modeling reality is not to slavishly follow what we see but rather to use it as a starting point for design, a source of inspiration, and an anchor to hold on to when the intangible nature of software threatens to overcome our ability to understand our programs." This passage is nothing more than a broad statement about the use of a software programs to model reality. Indeed, the passages cited by the Examiner in Stroustrup do not even mention modeling of hydrocarbons, much less, a hydrocarbon reservoir. Similarly, the Rahon reference does not mention object-oriented programming much less object-oriented extensible class hierarchy. As such, neither reference suggests or teaches a motivation for the proposed combination.

Accordingly, in view of the remarks set forth above, Applicants respectfully submit that the Stroustrup and Rahon references cannot support a *prima facie* case of obviousness. Therefore, Applicants respectfully request the Examiner's withdraw the rejection and allow the pending claims 2-5.

Second Rejection under 35 U.S.C. § 103

The Examiner rejected claim 6 under 35 U.S.C. § 103 (a) as being unpatentable over Stroustrup and U.S. Patent No. 6,842,725 to Sarda, which is herein referred to as "Sarda." Applicants respectfully assert that the Stroustrup and Sarda references do not disclose or teach the claimed subject matter.

Claim 6 depends from independent claim 1, and is believed to be patentable based on this dependence. In the rejection, the Examiner admitted that the Stroustrup reference does not expressly disclose the graphical user interface. In an attempt to cure this deficiency, the Examiner relied on the Sarda reference to cure the deficiencies of the Stroustrup reference, which are discussed above. However, the Sarda reference discloses the modeling of a well test in a fractured reservoir. *See Sarda*, col. 2, lines 8-17. Sarda describes a method of modeling fluid flows in the fractured multilayer porous medium by accounting for the real geometry of the fracture network and the local exchanges with the porous matrix. *See id.* at col. 2, lines 55-61. Clearly, Sarda simply provides a method for modeling fluid flow in a fractured reservoir into a well, not an "extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1. As such, because Sarda does not disclose the recited features of independent claim 1, the Sarda reference fails to cure the deficiencies of Stroustrup.

Therefore, claim 6 is patentable by virtue of its dependence from independent claim 1, as well as the subject matter recited in each of the claims. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claim 6.

Third Rejection under 35 U.S.C. § 103

The Examiner rejected claim 7 under 35 U.S.C. § 103 (a) as being unpatentable over Stroustrup and passages from "Design Patterns: Elements of Reusable Object-Oriented Software" by Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides (1995), which is herein referred to as "Vlissides." Applicants respectfully assert that the Stroustrup and Vlissides references do not disclose or teach the claimed subject matter.

Claim 7 depends from independent claim 1, and is believed to be patentable based on this dependence. In the rejection, the Examiner admitted that the Stroustrup reference does not expressly disclose the graphical user interface through which a user can define additional data members. In an attempt to cure this deficiency, the Examiner relied on the Vlissides reference to cure the deficiencies of the Stroustrup reference.

However, the Vlissides reference discloses a factory method of letting classes defer instantiation to subclasses. *See* Vlissides, page 107. Vlissides describes variations to the class hierarchies with the factory method. *See id.* at page 109. Clearly, Vlissides modifies the class hierarchy and does not provide an "extensible class hierarchy permitting the addition of additional object types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 1. Thus, because Vlissides does not disclose the recited features of independent claim 1, the Vlissides reference fails to cure the deficiencies of Stroustrup.

Therefore, claim 7 is patentable by virtue of its dependence from independent claim 1, as well as the subject matter recited in each of the claims. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claim 7.

Fourth Rejection under 35 U.S.C. § 103

The Examiner rejected claims 10-12 under 35 U.S.C. § 103 (a) as being unpatentable over Sarda. Applicants respectfully assert that the Sarda reference does not disclose or teach the claimed subject matter.

As discussed above, Sarda reference discloses the modeling of a well test in a fractured reservoir. *See* Sarda, col. 2, lines 8-17. In Sarda, a method of modeling fluid flows in the fractured multilayer porous medium by accounting for the real geometry of the fracture network and the local exchanges with the porous matrix is described. *See id.* at col. 2, lines 55-61. Clearly, Sarda does not provide or teach "building a model comprising a facility network, wherein the facility network comprises facility instances formed from facility types based on a first set of generic classes and member variable instances formed from member variables for the facility types based on a second set of generic classes, and wherein the first set and second set of generic classes are part of a class hierarchy that is not modified by the addition of other facility types and member variables," as recited in claim 10. As such, Sarda fails to disclose the claimed subject matter of claim 10.

Accordingly, in view of the remarks set forth above, Applicants respectfully submit that the Sarda reference cannot support a *prima facie* case of obviousness.

Therefore, Applicants respectfully request the Examiner's withdraw the rejection and allow the pending claims 10-12.

Fifth Rejection under 35 U.S.C. § 103

The Examiner rejected claim 13 under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 6,434,435 to Tubel et al., which is herein referred to as "Tubel," in view of Sarda. Applicants respectfully assert that the Tubel and Sarda references do not disclose or teach the claimed subject matter.

In the rejection of independent claim 13, the Examiner relied upon the Tubel reference to disclose all of the recited features except discretizing the reservoir into a plurality of volumetric cells, each modeled as nodes, and simulating the exchange of fluid between those nodes. In an attempt to cure these deficiencies, the Examiner relied upon the Sarda reference. However, Applicants respectfully note that Tubel and Sarda fail to disclose each of the recited features of independent claim 13. For example, Tubel and Sarda fail to disclose an "using facility instances and member variable instances of a class hierarchy to model the nodes and connections in the portion of the discretized model that represents wells and surface facilities of the physical system, wherein the class hierarchy comprises a first set of generic classes representing facility types utilized to create the facility instances and a second set of generic classes representing the member variables for the facility types utilized to create the member variable instances, the class hierarchy permitting the addition of additional facility types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 13. Hence, the Tubel and Sarda references cannot render the claimed subject matter obvious.

Tubel describes a process control optimization process for use with oilfield production management system. *See* Tubel; col. 1, lines 14-30 and col. 4, lines 5-10. In Tubel, the adaptive control process changes the model based on current process conditions through the use of intelligent software objects (ISOs). *See id.* at col. 6, lines 36-46. While each of the ISOs 10 have differing class hierarchy levels and data, they cooperate with other ISOs 10 of the same of different levels to achieve the systems goals. *See id.* at col. 9, lines 36-46. Further, the ISOs 10 may be connected into different groups of hierarchical sets. *See id.* at

col. 13, lines 57-64. As such, Tubel describes changing the class hierarchy, not an "using facility instances and member variable instances of a class hierarchy to model the nodes and connections in the portion of the discretized model that represents wells and surface facilities of the physical system, wherein the class hierarchy comprises a first set of generic classes representing facility types utilized to create the facility instances and a second set of generic classes representing the member variables for the facility types utilized to create the member variable instances, the class hierarchy permitting the addition of additional facility types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 13. As such, Tubel fails to disclose the claimed subject matter of claim 13.

Sarda fails to cure the deficiencies of the Tubel reference. Again, as discussed above, Sarda reference discloses the modeling of a well test in a fractured reservoir. *See* Sarda, col. 2, lines 8-17. In Sarda, a method of modeling fluid flows in the fractured multilayer porous medium does not provide or teach "using facility instances and member variable instances of a class hierarchy to model the nodes and connections in the portion of the discretized model that represents wells and surface facilities of the physical system, wherein the class hierarchy comprises a first set of generic classes representing facility types utilized to create the facility instances and a second set of generic classes representing the member variables for the facility types utilized to create the member variable instances, the class hierarchy permitting the addition of additional facility types and additional member variables without any modifications to the class hierarchy itself," as recited in claim 13. As such, Sarda fails to cure the deficiencies of Tubel.

Accordingly, in view of the remarks set forth above, Applicants respectfully submit that the Tubel and Sarda references cannot support a *prima facie* case of obviousness. Therefore, Applicants respectfully request the Examiner's withdraw the rejection and allow the pending claim 13.

Sixth Rejection under 35 U.S.C. § 103

The Examiner rejected claim 15 under 35 U.S.C. § 103 (a) as being unpatentable over Stroustrup. However, as noted above, Applicants have cancelled claim 15. As such, the rejection is moot.

New Claims 16-22

New claims 16-22 have been added in this response. Of these claims, only claim 16 is independent. Claim 16 sets forth an apparatus in a manner similar to the recitations of claim 1. However, the recitations of claims 16-22 have been crafted to focus more on other aspects described in the specification. *See e.g.* Application; Figs. 2-7; page 7, line 17 to page 36, line 3. Accordingly, as claims 16-22 are clearly supported by the specification, these claims are believed to be clearly patentable at least for the reasons set forth above with respect to claims 1-13.

Fees for New Claims


As Applicants are canceling two independent claims and adding one independent claim along with six dependent claims, no fee is believed to be required. If this amount is in error, the Commissioner is authorized to charge the appropriate fees to the Deposit Account No. 05-1328.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

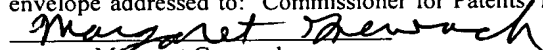
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